on the nervous system; consequently the blood is the way by which medicinal agents arrive at, and transmit their action to the nervous system.—*Ed. Med. and Surg. Journ.*, Oct. 1843, from *L'Experience*, 11 May, 1843.

MATERIA MEDICA AND PHARMACY.

4. *New Counter-irritant composed of powdered Ipecacuanha root.*—Dr. Hannay, of Glasgow, in the *Edinburgh Medical and Surgical Journal*, (Oct. 1843,) notices favourably a liniment first suggested to him by his colleague Dr. Easton, Professor of Materia Medica in Anderson's University. The following is the formula for its preparation:—℞ *Ipecac. Pulv.; Olei Oleæ Europ. aa.* ʒij.; *Adipis Suill* ℥ss.; *M. opt. fiat linimentum fricendo admovendum.* The part we wish to irritate is to be rubbed freely with this liniment for fifteen or twenty minutes three or four times daily, and enveloped in flannels. This produces, in about thirty-six hours, or sometimes sooner, very numerous small papulæ and vesicles, seated on a deep-red base of irregular extent. They become flattened in a short period, and assume the pustular character. Many of them run together; are confluent. The part feels hot to the hand of another, and a tingling sensation, never amounting to pain, is experienced by the patient. The eruption endures pretty vividly for a few (three) days, during which the pustules become covered with a scab-like scale, and fall off, leaving no mark. They never ulcerate, as do the pustules from the tartrate of antimony. Dr. H. regards the ipecacuanha as a very valuable addition to our counter-irritants. It is not over severe, as the tartrate is occasionally found to prove. Yet, with all its moderation, it is very efficient, and extremely manageable. In feeble, young, and very irritable persons it will, Dr. H. feels assured, prove a very suitable counter-irritant. He specially begs attention to the use of it in the head diseases of a chronic kind in infants and young children. Many of these cases follow the suppression of eruptions and scabbed diseases of the scalp. Now, the ipecacuanha liniment produces a scabbed state of the scalp, as nearly resembling the affections in question as can be imagined, and maintaining a counter-irritation on the surface.

5. *Solution of Tartar Emetic for the purpose of counter-irritation.*—Dr. Hannay says that "there is one way of using the tartrate of antimony externally, which lessens its virulence, but still leaves enough of energy to make it also a valuable counter-irritant,—as more than twenty years experience has fully convinced him.* It is in solution. One drachm of the salt is rubbed up with an ounce of boiling water in a mortar. This is rubbed on the surface we wish to irritate in the same way as the liniment of ipecacuanha. This is never productive of the evils charged against the liniment. Its effects approach nearly to that of the ipecacuanha liniment. Both, particularly the liniment, may be continued or persisted in for a longer period, and what it wants in energy may be made up for by its longer agency.

He has used the liniment in chronic affections of the chest, and, to his mind, with satisfactory results, certainly with as decidedly good effect as any of the epispastics,—over which its mild and manageable nature gives it a great superiority." —*Edin. Med. and Surg. Journ.*, October, 1843.

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* Thes. Inaug. De Tart. Antimonii usu Externo. Edinburgh, 1823. In that thesis Dr. H. gave the following formula. R. *Tart. Antim.* one drachm, *Mur. Hyd. Corros.* five grains, *Aq. Puræ* one ounce, *Sp. Lavand. Comp.* gt. ten. M. The muriate quickens its action in a decided manner; and Dr. H. still regards this lotion as a highly valuable application to the chest in pulmonary diseases. Dr. J. C. Williams also regards tartrate of antimony as serviceable in these cases and in this way. The addition of five grains of corrosive sublimate in the above formula will be found, according to Dr. H., to increase its power and efficacy.

6. *Observations and Researches upon a new solvent for Stone in the Bladder.* By Alexander Ure, M. D., &c.—In perusing some inquiries relative to the treatment of certain forms of urinary disease, Mr. Ure's attention was directed to the properties of carbonate of lithia, a substance of which no therapeutic application has been heretofore made. This substance occurs in various mineral-waters, some of which are said to be serviceable in certain unhealthy conditions of the urinary organs.

In order to determine the solvent powers of carbonate of lithia with reference to uric acid and its compounds, at the common temperature of the human body, Mr. U. instituted the following experiments:

A solution of one grain of carbonate of lithia in an ounce of distilled water was brought to a temperature of 98°, and pure uric acid gradually added in minute portions until it ceased to dissolve. The quantity thus taken up was 2.3 grains. The resulting solution, which remained unchanged the following morning, being saturated with hydrochloric acid, threw down a precipitate of uric acid, amounting to two grains. Now it has been shown by Mr. U. that one grain of crystals of soda, dissolved in an ounce of water, took up only one grain of uric acid—that one grain of carbonate of potash took up 1.4 grains—one grain of borax 1.2 grains—and four grains of bicarbonate of soda 1.1 grains. Hence it follows that the solvent power of carbonate of lithia is more than double that of carbonate of soda; nearly double that of carbonate of potash or borax; and about eight times that of bicarbonate of soda, which is the active ingredient of the Vichy water.

A human urinary calculus, composed of uric acid with alternate layers of oxalate of lime, having been most accurately poised, after being previously brought to hygrometric repose, by digesting in fresh urine and then carefully dried, was placed in a solution of four grains of carbonate of lithia, in an ounce of distilled water, and steadily maintained at a blood-heat by means of a water-bath, during five consecutive hours. On being withdrawn, nicely washed, and again dried as before, it was found to have lost five grains in weight, which is at the rate of one grain an hour. The calculus is deeply eroded in different parts, but the delicate laminæ of oxalate of lime remain intact, imparting to the surface the appearance of deep etching. The menstruum acquired a pale yellow tinge, and there fell down from it on cooling a light flocculent deposit of urate of lithia, in which silky crystalline tufts could be discerned by help of the microscope. It was still alkaline to litmus. Decomposed by means of hydrochloric acid, it yielded nearly three grains of pure uric acid.

In another experiment, the remaining half of the same calculus being allowed to stand during four hours in two ounces of the natural Vichy water, from the spring called *Hôpital* (containing three grains and a half of carbonate of soda), was found to have parted with two-tenths of a grain of uric acid; while the former portion of the calculus, placed under precisely similar circumstances, at the same time, in a solution of 1.6 grains of carbonate of lithia to two ounces of distilled water, afforded nine-tenths of a grain of uric acid. Thus is demonstrated the very superior solvent agency of the above feeble lithia solution over the Vichy water.

Half a grain of urate of soda (the ordinary basis of gouty concretions or chalk stones) diffused in an ounce of distilled water at the blood heat, completely dissolved with the addition of one grain of carbonate of lithia, the solution continuing limpid and unaltered; whereas, half a grain of the same urate in a similar quantity of water at a corresponding temperature, rests apparently unchanged.

It deserves notice, that when fresh healthy urine is rendered alkaline by carbonate of lithia, no deposition ensues.

A very large proportion of the stones which occur in the urinary bladder of man, are composed in whole or in part of uric acid. Of all the various menstrua hitherto recommended, none appears to promise more favourably, Dr. U. thinks, than the carbonate of lithia, from the promptitude and energy with which in dilute solution it attacks calculi of this description. If by means of injection we can reduce a stone at the rate of a grain or more an hour, as the above experiment would lead us to anticipate, we shall not merely diminish the positive bulk of the calculus, but farther loosen its cohesion, disintegrate it, so to speak, causing it to crumble down and be washed away in the stream of the urine. Cases may present themselves in which it may be expedient to conjoin the use of the lithontriptor; but only occasionally and at long intervals. It is the frequency of repetition which renders that instrument so hazardous.

It may be presumed, moreover, that the plan of throwing in a weak solution of this kind, would generally exercise a beneficial influence in obviating irritation, by removing the sharp angular points and asperities of the broken fragments, where the practice of crushing is adopted.

No apprehension need be entertained from the administration of injections, if judiciously directed. Sir Benjamin Brodie found that the bladder bore without inconvenience a stream of fluid composed of two minims and a half of nitric acid for each ounce of distilled water. (*London Medical Gazette*, June, 1831.) An Austrian surgeon has recently introduced vinegar into the bladder, with excellent success, in an instance of phosphatic calculus. Mons. Lisfranc, the eminent French surgeon, has used in like manner tincture of cantharides for the cure of enuresis; and Dr. U. himself has thrown a dilute solution of nitrate of silver into the bladder, with the best effect, in cases of chronic catarrh of that viscus."—*Pharmaceutical Journal*, Vol. III., No. 2.

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7. *On some preparations of Balsam Copaiba.*—Mr. Jacob Bell in a paper in the *Pharmaceutical Journal*, notices several preparations of copaiba, and recommends the following as the best:—

When balsam of copaiba is boiled with liquor potassæ, the mixture separates into two portions, a white oily substance or emulsion, which floats on a yellowish clear liquid. After standing for a day or two, the upper stratum becomes quite clear, the potash being thrown down, and the residue consisting of essential oil. The clear liquid is a solution of the resin in combination with potash. When evaporated to dryness, it assumes the character of the soluble resin. Caustic soda may be substituted for potash.

This liquid is supposed to contain the most active and efficacious portion of the balsam. A small quantity of sweet spirit of nitre is added to it in order to increase the effect.

The following proportions have been found to answer very well. A mixture thus prepared is much less nauseous than the balsam; a dessert-spoonful of it may be taken twice or three times a day:—Balsam of copaiba, two parts. Liquor potassæ (or sodæ), three parts. Distilled water, seven parts. Boil for a quarter of an hour, then add—Sweet spirits of nitre, one part. Allow it to stand a few hours, then draw off the clear liquid by means of an orifice in the lower part of the vessel.

This, the alkaline solution of copaiba, being deprived of the essential oil which is generally considered to be the most irritating principle, is mild in its action, and is less nauseous than the other mixtures on account of the perfect union of the alkali with the resin.

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8. *Influence of Camphor on the Sexual Organs.*—Among the ancients, camphor was celebrated as an anti-aphrodisiac, and several of the moderns have borne testimony to its influence on the sexual organs. Albert cites the case of a nymphomanic patient at St. Louis, whom he cured by a drachm of camphor at a dose; and Esquirol has successfully treated hysteric nymphomaniacs with the same remedy. M. Guersant speaks of a druggist whose virility failed him after the perpetual employment, *during one day*, of a smelling-bottle containing spirit of camphor, also of a young woman, of ardent and excitable temperament, in whom the use of camphor pills subdued all sexual desires; and Dupuytren attended a medical student in whom impotence had ensued after having slept in a room in which camphor was kept. M. Felix Le Gros asserts that he has found this substance the most active remedy he could use for blennorrhagic erections and chordee.—*Gazette des Hôpitaux.*